

Remarks/Arguments:

I. Status

Proper status identifiers have been used in the listing of the claims as requested by the Notice of Non-Compliant Amendment dated April 11, 2005. The Office Action dated July 29, 2004 (the "Office Action") has been carefully reviewed. The specification and claims 1, 3, 4, 9, 10, 15 and 16 have been amended. New claims 19-22 have been added. Accordingly, claims 1-22 are pending in this application. Reconsideration of this application, as amended, is respectfully requested.

II. The Informalities in the Specification Have Been Corrected.

In the Office Action, various informalities in the disclosure were identified by the Examiner. (Office Action at page 2). The informalities have been corrected. Accordingly, the objections to the disclosure have been overcome.

III. Claim 4 Has Been Corrected to Avoid Double Patenting.

In the Office Action, claim 4 was objected to as being a substantial duplicate of claim 3. (Office Action at page 2). Claim 4 has been amended, *inter alia*, to depend from claim 1. Accordingly, the limitations of claim 4 are no longer substantially duplicative of the limitations of claim 3.

IV. Various Informalities in the Claims Have Been Corrected.

Claims 3, 4, 9, 10, 15, and 16 have been amended to eliminate informalities and to provide additional clarity.

V. The Rejection of Claims 1, 2 and 5 under 102(a) Has Been Overcome.

In the Office Action, claims 1, 2 and 5 were rejected under 35 U.S.C. 102(a) as being anticipated by U.S. Patent Application Publication No. 2001/0014870 A1 of Saito et al. (hereinafter "Saito"). Claim 1 has been amended to include a limitation not disclosed by Saito:

Discussion Regarding Patentability of Claim 1

1. Saito Does Not Disclose Transmission to a Device Removed From the Transmission Source.

The Office Action rejected claim 1 based upon the proposition that Saito disclosed transmitting from the store. (Office Action at page 3). While Saito discloses a system that can be used to transmit a radio signal, Saito does not disclose various elements of claim 1 as amended.

Specifically, claim 1 as amended includes the limitation of transmitting the radio signal from the store with a signal strength sufficient to be received by a personal device that is removed from the source of the transmission. In rejecting claim 1, the Examiner relied upon paragraphs 128-130 of Saito which discloses a radio signal that is transmitted from a base station 102. However, the base station 102 transmits a very low strength signal and is thus limited to transmission of a signal to a device located near the source of the transmission. For example, Saito discloses that the portable device is placed "near the base station" when a transmission is to occur. (Saito at paragraph 108). Similarly, FIG. 2

of Saito shows the portable device 105 placed directly underneath the radio base station 102 to receive transmissions. The placement of the portable device 105 underneath the radio base station 102 allows the radio shield 122 to minimize external noise so that the portable device 105 can receive the transmission.

Saito further discloses that one technology that may be used in the system of Saito is Bluetooth technology. Those of ordinary skill in the relevant art understand that the power of a radio using Bluetooth technology is classified within one of three classes. Power Class 1 includes devices with a range of up to about 100 meters. Power Class 2 includes devices with a range of up to about 10 meters. Power Class 3 includes devices with a range of up to about 10 centimeters. Accordingly, it is clear that the radio base station 102 is a Power Class 3 device. Use of such a device allows for a plurality of devices to be used within a limited area such as a checkout area as discussed in Saito. (See e.g. Saito at paragraph 0061).

Saito thus discloses a transceiver operable to transmit a signal at a very low signal strength as evidenced by the need for shielding and for placement of the receiver in close proximity to the radio base station. In contrast, claim 1 recites the limitation of transmitting a radio signal with sufficient strength to be received by a personal device at a removed location. A transmission with a signal strength that can be received at a removed location is not the same as a transmission with a signal strength that requires a receiver to be in close proximity to the transmission source. Anticipation under 35 U.S.C. § 102 is proper only if the prior art reference discloses each and every element of the claim. Since the radio base station 102 of Saito does not disclose each and every

element of Applicant's claim 1, Saito does not anticipate claim 1. Therefore, the rejection of claim 1 under 35 U.S.C. 102(a) should be withdrawn.

Discussion Regarding Patentability of Claims 2 and 5

Claims 2 and 5 depend directly from claim 1. As a result, claims 2 and 5 are allowable for the reasons set forth above with respect to claim 1. Moreover, each of these claims include additional novel and non-obvious limitations. Accordingly, the Applicant respectfully submits that claims 2 and 5 are further allowable over the cited art.

VI. The Rejection of Claims 3, 4, 7-11 and 13-17 under 103(a) Should be Withdrawn.

In the Office Action, claims 3, 4, 7-11 and 13-17 were rejected under 35 U.S.C. 103(a) as being obvious over Saito in view of U.S. Patent Application Publication No. 2002/0008626 A1 to Waters et al. (hereinafter "Waters"). The Applicant respectfully traverses.

The Present Invention

The present invention is directed to a wireless communication system used in advertising. In one embodiment, an advertisement for a store is formatted and transmitted through an antenna to a personal device of a potential customer. The transmitted signal may be received on a personal device removed from the antenna by up to about 100 yards. The personal device may accordingly be within the store or near the store. The personal device receives the transmitted advertisement and displays the

advertisement for the user. In a further embodiment, the short-range wireless communication system is interactive.

Saito

Saito discloses a coupon sending/collecting scheme. (Saito at Abstract). An object of Saito is to collect and manage information regarding customers within a facility. (Id. at paragraph 0019). In accordance with the objective of Saito, radio base stations may be placed at various locations in a store. A first radio base station 1102 may be placed above an entrance to the store. (See e.g. FIG. 21). The radio base station 1102 is used to obtain information regarding the customer from the personal device of the customer as the customer enters the facility. (Id. at paragraph 0277). The radio base station 1102 is further operable to transmit coupons to the personal device. (See e.g. Id. at paragraph 0293). However, the radio base station 1102 is prevented from transmitting coupons to customers merely moving back and forth around the doorway of the store or leaving the store. (Id. at paragraph 0298).

A coupon may further be downloaded or used at a checkout station. (Id. at paragraph 0067, FIG. 2). Transmission of the coupon at the checkout station is accomplished by placing the personal device “near the base station”. (Id. at paragraph 0108). This is shown in FIG. 2 of Saito as the portable device 105 is placed directly underneath the radio base station 102 to receive transmissions.

Additional base stations are located throughout the facility as indicated by radio base stations 1101-1109 shown in FIG. 18. In each instance, shielding may be provided to limit interference from other transmission sources. (Id. at paragraph 0246). The

system thus enables the customer's movement into and out of the range of the radio base stations to be tracked. (Id. at paragraph 0311 et seq. and FIG. 25). This information is used to determine whether a customer is merely walking past an area or is lingering in an area. The determination is based upon the amount of time that the personal device of the customer is within the coverage area of a particular radio base station. (Id. at paragraph 0315).

Accordingly, to provide the objectives of Saito, the radio base stations must be of a limited range. If the range is increased to the point where the range of the base stations overlap, it is no longer possible to effectively track a customer since it would not be possible to determine which area the customer was in. Moreover, any increase in the range of the base stations reduces the ability to determine whether a customer is lingering within an area or merely passing through, since a customer moving directly past the base station may be within range of the base station for the same amount of time as a customer that is lingering at a point near the periphery of the base station range. Additionally, a strong signal could interfere with the operation of other radio base stations, even if shielding is used. Accordingly, a radio base station in accordance with the system disclosed by Saito is designed such that a signal from a particular radio base station is only received by a personal device that is near to the radio base station. (See e.g. paragraphs 55, 108, 179, 228 and 325).

Waters

Waters discloses a system and method for targeting information displayed in a store window to passer-bys. (Waters at Abstract). Waters discloses that a beacon signal

is transmitted to receivers within a presence zone 15. (Id. at paragraph 0028). The beacon signal is detected by devices in the presence zone 15, and the devices respond to the beacon signal with a message identifying the user of the device. (Id. at paragraph 0028). The store's data processing system 30 uses the identification of the user of the device to determine the interests of the customer. (Id. at paragraph 0028). Subsequently, content which is targeted to the identified user is displayed on a store window display 13 located in the window of the store. (Id. at paragraphs 25 and 28, FIG. 1).

Discussion Regarding Patentability of Claim 3

1. The Discussion of Claim 1 Applies to Claim 3

The Examiner has alleged that Saito discloses most of the limitations of claim 3, and that Waters discloses the limitation of transmitting the radio signal to a location outside of the store. (Office Action at page 4). However, the actual modification proposed by the Examiner is not clear. The Office Action merely states that "Waters teaches the perimeter is outside of the store" based upon FIG. 1, zone 15 and column 6, lines 39-54 of Waters. (Office Action at page 4). This statement may be intended to propose relocating a base station of Saito to a location outside of the store. Alternatively, the statement may be intended to propose using the higher power transmitter of Waters as one of the base stations of Saito to create the zone 15 of Waters. Yet another interpretation is that the system of Waters is added to the system of Saito. Under any of these interpretations, the Examiner has failed to make a *prima facie* case of obviousness.

With respect to simply changing the location of the transceiver of Saito, the proposed modification does not arrive at the invention of claim 3. Claim 3 depends by

way of claim 2 from claim 1 and incorporates all of the limitations of claim 1. For the reasons set forth above with respect to claim 1, Saito does not disclose the “transmitting” step. Thus, modification of Saito to include a radio base station situated so as to transmit in an area outside of the store does not arrive at a radio base station operable to transmit to a personal device that is removed from the source of the transmission since merely changing the location of the base station does not change the strength of the signal transmitted from the base station.

Therefore, modification of Saito as proposed in the Office Action does not arrive at the invention of claim 3. Thus, for the same reason set forth above with respect to claim 1, the Examiner has failed to present a *prima facie* case of obviousness and the rejection of claim 3 under 35 U.S.C. 103(a) should be withdrawn.

2. There is No Motivation or Suggestion for the Proposed Modification

Alternatively, to the extent the Examiner intended the modification to be a replacement of a Saito base station with a transmitter of Waters, such that the proposed modification somehow results in a radio base station that transmits to a remote device that is located outside of the store, there is no motivation for such a modification since it renders Saito unsatisfactory for its stated purpose.

A stated purpose of Saito is to enable a store to track the movement of customers within the store. (Saito at paragraph 0019). However, as the transmission range of a radio base station is increased so as to transmit to a personal device that is at a remote location, the system of Saito is rendered unsatisfactory for tracking customers. The increased signal strength results in increased interference at the locations of the other

radio base stations in the store. Accordingly, the transmission strength of each of the other radio base stations may either be increased so as to achieve an acceptable signal-to-noise ratio at the personal device or the other base stations may be further shielded so as to reduce interference. Both of these options are unsatisfactory.

In the event the signal strength of each of the base stations is increased, the effective range of the receiver is also increased. Thus, a determination of whether a customer is lingering within an area or merely passing through the area becomes at least more difficult if not impossible. Moreover, because individuals *outside* the store are within the range of at least one base station, it is not possible to determine whether the user of a device is even *inside* the store at all. Therefore, an increased signal strength renders Saito unsatisfactory for its stated purpose of tracking the movement of customers within a store.

Moreover, increased shielding at other base stations results in a decreased effective range for the base station. Accordingly, even if a customer is lingering within an area, a shielded base station may not be able to detect the user's personal device. Thus, increased shielding renders Saito unsatisfactory for its stated purpose of tracking the movement of customers within a store.

Therefore, the proposed combination renders Saito unsatisfactory for its intended purpose of tracking customer movement. If a proposed modification renders the prior art unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 U.S.P.Q. 1125 (Fed. Cir. 1984). Accordingly, there is no motivation or suggestion for the proposed modification

of Saito. Thus, the Examiner has failed to present a *prima facie* case of obviousness and the rejection of claim 3 under 35 U.S.C. 103(a) should be withdrawn.

3. Waters Has Been Mischaracterized

Moreover, claim 3 recites that the *radio signal* is transmitted “to within a perimeter that is outside of the store”. The Office Action alleges that this limitation is disclosed by Waters. (Office Action at page 4). Respectfully, the Office Action has mischaracterized Waters.

Specifically, the Office Action alleges that zone 15 shown in FIG. 1 and discussed at column 6, lines 39-54 discloses transmission to outside the store. (Office Action at page 4). However, in accordance with Waters a beacon signal is transmitted to receivers within a presence zone 15. (Waters at paragraph 0028). The beacon signal is detected by devices in the presence zone 15, and the devices respond to the beacon signal with a message identifying the user of the device. (Id. at paragraph 0028). Subsequently, content is displayed on a shop window display 13 located in the window of the shop. (Id. at paragraphs 0025 and 0028, FIG. 1). Waters does not disclose the characteristics of the media by which the content is transmitted to the display 13. However, FIG. 2 clearly shows that a short range transceiver 14 is used to transmit the beacon signal to the device 20 and that the content for the display 13 does not pass through the transceiver 14. Rather, the content is passed to the display 13 from a data processing system 30. Therefore, the only radio signal disclosed by Waters is a beacon signal that does not include a formatted advertisement.

Claim 3 recites a radio signal used to transmit a formatted advertisement. The radio signal of Waters does not include a formatted advertisement. A radio signal *without* a formatted advertisement is not a radio signal *with* a formatted advertisement. Therefore, even assuming Saito is modified to include the transmitted signal of Waters, such a modification does not arrive at the present invention. Thus, the Examiner has failed to present a *prima facie* case of obviousness and the rejection of claim 3 under 35 U.S.C. 103(a) should be withdrawn.

4. The Rationale Supporting Modification is Not Convincing

Finally, the Examiner has offered that the reason that the proposed combination would be made would be “to transmit an advertising display intended for tourists and motorists outside the store...” (Office Action at pages 4-5). Respectfully, the line of reasoning is not convincing.

The Examiner proposes including the teaching of Waters in the system of Saito to provide an advertising display as suggested by Waters at column 6, lines 39-54. (Office Action at page 5). The argument presented in the Office Action thus amounts to a claim that one of ordinary skill in the art would be motivated to include the electronic sign of Waters in order to have the electronic sign of Waters. Such logic is circular and is therefore not convincing.

Moreover, the line of reasoning does not appear to relate to the proposed modification. Specifically, the claimed invention is directed to a radio signal that is transmitted to a personal device of a user with a formatted advertisement. At column 6, lines 39-54 (paragraph 0046), Waters discloses a display 13 that is viewable by passers-

by of a store. The same arrangement is disclosed as being used near an elevator. (Id. at paragraph 0046). Regardless of the location of the passer-by, however, the nature of the display 13 and the system of Waters does not change. Therefore, Waters discloses the use of an electronic sign associated with a store to provide targeted advertisements. The Examiner has not explained how a desire to provide an electronic sign hanging in a display window is related in any way to transmission of a formatted radio signal to a personal device. Without a logical connection between the argument supporting modification and the modification being proposed, the argument cannot be convincing.

For any or all of the above reasons, the Examiner has failed to set forth a convincing line of reasoning as to why the invention of claim 3 would have been obvious to one of ordinary skill in the art. Therefore, under MPEP § 2142 the Examiner has failed to present a *prima facie* case of obviousness and the rejection of claim 3 under 35 U.S.C. 103(a) should be withdrawn.

5. Conclusion as to Claim 3

Therefore, for any or all of the above reasons, the Office Action has failed to establish a *prima facie* case of obviousness over Saito in view of Waters under 35 U.S.C. § 103 with regard to the invention of claim 3. Accordingly, the Examiner is respectfully requested to withdraw this rejection of claim 3.

Discussion Regarding Patentability of Claim 4

Claim 4 was rejected for the same reasons discussed above with respect to claim 3. Claim 4 depends from claim 3 and includes additional limitations. Therefore, for at

least the same reasons set forth above with respect to claim 3, the Examiner has failed to establish a *prima facie* case of obviousness over Saito in view of Waters under 35 U.S.C. § 103 with regard to the invention of claim 4. Accordingly, the Examiner is respectfully requested to withdraw this rejection of claim 4.

Discussion Regarding Patentability of Claim 7

Claim 7 was rejected as obvious based upon Saito modified to include the teaching of Waters. The Applicant respectfully traverses.

1. There is No Motivation for the Proposed Modification

The Examiner alleges that all of the elements of claim 7 are disclosed by Saito with the exception of “an antenna in communication with the transmitter and operative to transmit the radio signal from the store.” (Office Action at page 5). The examiner alleges that Waters teaches an antenna “operative to transmit the radio signal from the store” citing to the antenna 14 shown in FIG. 2.

However, such a modification results in a loss of the ability to track customers *within* the store. Specifically, under the proposed modification the system could not determine whether a person was lingering at an area inside of the store or outside of the store as discussed above with respect to claim 3. Therefore, for the same reason set forth above with respect to the inability to track customers under the proposed modification for claim 3, the Examiner has failed to establish a *prima facie* case of obviousness over Saito in view of Waters under 35 U.S.C. § 103 with regard to the invention of claim 7. Accordingly, the Examiner is respectfully requested to withdraw this rejection of claim 7.

2. Waters Has Been Mischaracterized

The Office Action includes the allegation that Waters teaches an antenna “operative to transmit the radio signal from the store” citing to the antenna 14 shown in FIG. 2. However, as discussed above with respect to claim 3, the radio signal of Waters is merely a beacon signal. In contrast, claim 7 recites that a radio signal includes a formatted advertisement. The antenna of Waters does not transmit a radio signal with a formatted advertisement. Thus, as discussed above with respect to claim 3, the Examiner has mischaracterized Waters. Therefore, the Examiner has failed to establish a *prima facie* case of obviousness over Saito in view of Waters under 35 U.S.C. § 103 with regard to the invention of claim 7. Accordingly, the Examiner is respectfully requested to withdraw this rejection of claim 7.

3. The Rationale Supporting Modification is Not Convincing

Moreover, the Examiner has alleged that the reason that the proposed combination would be made would be “in order to send electronic coupon to the mobile inside and outside the store.” (Office Action at page 5). Respectfully, the line of reasoning is not convincing.

The Examiner proposes including the teaching of Waters in the system of Saito to send a radio signal with a coupon outside of the store in order to provide an electronic coupon outside of the store. (Office Action at page 5). The argument presented is circular and is therefore not convincing.

Moreover, there does not appear to be any benefit if Saito is modified as proposed by the Examiner. Specifically, the system of Saito as disclosed in Saito appears to be fully operable to transmit coupons to customers as they enter a store. After modifying the system of Saito to be operable to transmit to individuals outside of the store as well as those entering the store, the customers entering the store will still receive the coupons. It does not appear that any advantage is gained by the proposed modification. However, the proposed modification would entail additional resources both in acquiring the system as well as operating the system. The Examiner has thus failed to present any reasoning to support the proposition that one of skill in the art would be motivated to modify the system of Saito to include additional equipment at additional costs while obtaining no additional benefits. Therefore, the reasoning used by the Examiner is not convincing.

For any or all of the above reasons, the Examiner has failed to set forth a convincing line of reasoning as to why the invention of claim 7 would have been obvious to one of ordinary skill in the art. Therefore, under MPEP § 2142 the Examiner has failed to present a *prima facie* case of obviousness and the rejection of claim 7 under 35 U.S.C. 103(a) should be withdrawn.

4. Conclusion as to Claim 7

Therefore, for any or all of the above reasons, the Office Action has failed to establish a *prima facie* case of obviousness over Saito in view of Waters under 35 U.S.C. § 103 with regard to the invention of claim 7. Accordingly, the Examiner is respectfully requested to withdraw this rejection of claim 7.

Discussion Regarding Patentability of Claims 8-11

Claims 8-11 were rejected based upon the same reasons discussed above with respect to claim 7. Claims 8-11 depend from claim 7 either directly or by way of one or more intermediate claims and include additional limitations. Therefore, for at least the same reasons set forth above with respect to claim 7, the Examiner has failed to establish a *prima facie* case of obviousness over Saito in view of Waters under 35 U.S.C. § 103 with regard to the invention of claims 8-11. Accordingly, the Examiner is respectfully requested to withdraw this rejection of claims 8-11.

Discussion Regarding Patentability of Claims 13-17

Claim 13 includes a limitation of an antenna "operative to transmit the radio signal from the store". This limitation is similar to the antenna limitation discussed above with respect to claim 7. Claims 14-17 depend either directly or by way of one or more intermediate claims from claim 13 and include the same antenna limitation. Moreover, claims 13-17 were rejected based upon the same combination of Saito and Waters discussed above with respect to claim 7. Therefore, for at least the same reasons set forth with respect to claim 7, the Examiner has failed to establish a *prima facie* case of obviousness over Saito in view of Waters under 35 U.S.C. § 103 with regard to the invention of claims 13-17. Accordingly, the Examiner is respectfully requested to withdraw this rejection of claims 13-17.

VII. The Rejection of Claims 6, 12 and 18 under 103(a) Should be Withdrawn.

In the Office Action, claims 6, 12 and 18 were rejected under 35 U.S.C. 103(a) as being obvious over Saito in view of U.S. Patent No. 6,587,835 A1 to Treyz et al. (hereinafter "Treyz"). The Applicant respectfully traverses.

Discussion Regarding Patentability of Claim 6

1. The Discussion of Claim 1 Applies to Claim 6

The Office Action indicates that Saito is alleged to disclose most of the limitations of claim 6, and includes a citation to Treyz for the limitation of transmitting an interactive component in the radio signal. (Office Action at page 8). The proposed modification does not arrive at the claimed invention

Claim 6 depends by way of claim 5 from claim 1 and incorporates all of the limitations of claim 1. For the reasons set forth above with respect to claim 1, Saito does not disclose the "transmitting" step. Thus, modification of Saito to include an interactive component does not arrive at a radio base station operable to transmit to a personal device that is removed from the source of the transmission since merely changing the content of the signal does not change the strength of the signal transmitted from the base station.

Therefore, modification of Saito as proposed in the Office Action does not arrive at the invention of claim 6. Thus, for the same reason set forth above with respect to claim 1, the Examiner has failed to present a *prima facie* case of obviousness and the rejection of claim 6 under 35 U.S.C. 103(a) should be withdrawn.

Discussion Regarding Patentability of Claims 12 and 18

1. *Prima Facie* Obviousness Has Not Been Properly Alleged.

In the Office Action, the Examiner stated that Saito failed to teach the antenna limitations found in claims 7 and 13. (Office Action at pages 5 and 7). Claims 12 and 18 depend directly or by way of one or more intermediate claims from claims 7 and 13, respectively. Therefore, both of claims 12 and 18 include the same antenna limitation that the Examiner has stated is not disclosed by Saito. The Examiner relies upon Treyz for the proposition that a transmitted radio signal includes an interactive component. Accordingly, even modifying the system of Saito to include an interactive component does not provide the antenna limitation that the Examiner has stated is missing in Saito.

Therefore, modification of Saito as proposed in the Office Action does not arrive at the invention of claim 6. Thus, the Examiner has failed to present a *prima facie* case of obviousness and the rejection of claims 12 and 18 under 35 U.S.C. 103(a) should be withdrawn.

VII. Claims 19-22.

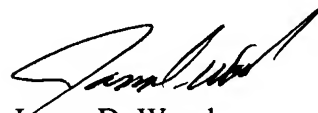
Claims 19-22 have been added. These claims recite novel and non-obvious limitations. Accordingly, claims 19-22 are believed to be allowable over the prior art.

VIII. Conclusion

Applicant respectfully requests entry of the amendments and favorable consideration of the application.

A prompt and favorable action on the merits is requested.

Respectfully Submitted,
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